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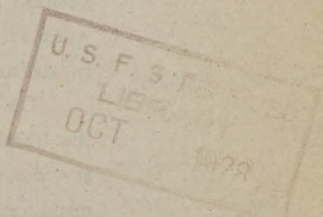


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FOREST PRODUCTS RESEARCH IN PICTURES

NO. 61

## STRENGTH OF VARIOUS TYPES OF DOOR CONSTRUCTION



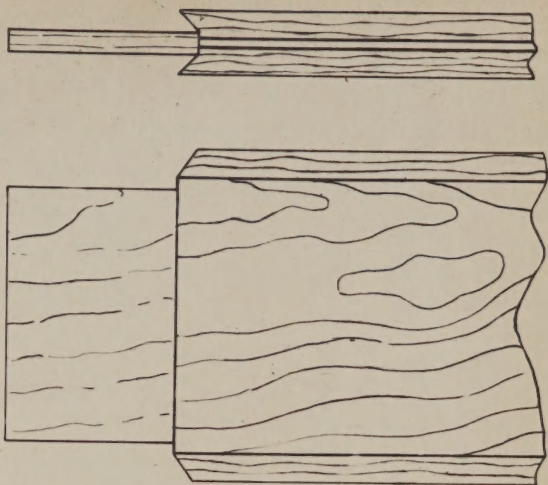
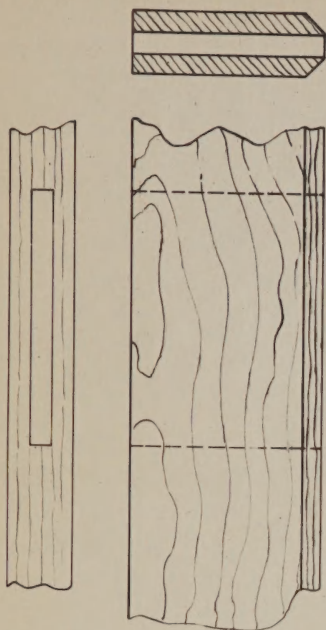
FOREST PRODUCTS LABORATORY  
U. S. FOREST SERVICE  
MADISON, WISCONSIN

Mechanical tests of doors by the Forest Products Laboratory have shown that doors put together by the "through mortise and tenon" method shown here have greater stiffness and resistance to sagging than either the dowel - joined doors or the type called "blind mortised and tenoned." The blind mortised and tenoned doors, in which the tenons of the horizontal members or rails do not go clear through the vertical stiles, showed the lowest strength but were somewhat superior to the dowelled doors in stiffness.

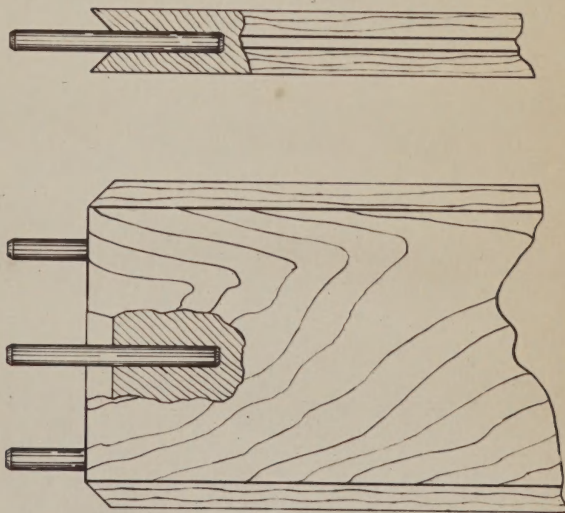
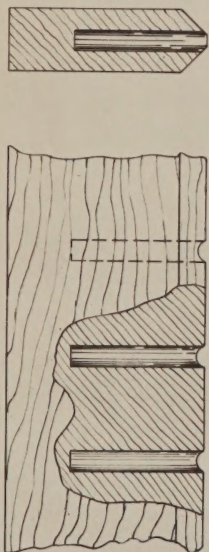
On being subjected to a damp atmosphere the blind mortised and tenoned doors swelled the most, and in dry air showed the largest opening of joints. The dowelled doors were the least affected by change of atmospheric conditions.

*Diagram by Forest Products Laboratory,  
U. S. Forest Service*





MORTISE AND TENON JOINT



DOWEL JOINT

